IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Satoshi Seo et al.	Art Unit	: 1774
Serial No.	: 10/622,504	Examiner	: Dawn Garrett
Filed	: July 21, 2003	Conf. No.	: 4688
Title	: MATERIAL FOR AN ELECTROLUMINESCENCE ELEMENT AND ELECTROLUMINESCENCE ELEMENT USING THE SAME		

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY TO ACTION OF APRIL 12, 2006

In reply to the outstanding office of April 12, 2006, applicants submit the following remarks.

Claims 1-32 are pending, with claims 1-22, 27 and 30 being independent. Claims 1, 2, 4-13 and 15-22 have been withdrawn from consideration, leaving claims 3, 14 and 23-32, including independent claims 3, 14, 27 and 30, under consideration.

Claims 3, 14 and 23-32 have been rejected as being unpatentable over Bernius (U.S. Publication No. 2002-0153523) in view of Kono (U.S. Patent No. 5,917,693) and Nakayama (U.S. Patent No. 5,943,154). Applicant again requests reconsideration and withdrawal of this rejection because, absent an impermissible hindsight reconstruction of the invention, there would have been no motivation to combine Bernius, Kono and Nakayama in the manner set forth in the rejection.

The rejection fails to show that any such motivation exists and, instead, merely indicates it would have been obvious to use the doped polyaniline of Kono because Kono teaches that the doped polyaniline is an electrically conductive material. Thus, the rejection, in essence, argues that the material of Kono "could" be substituted for the material of Bernius and that, for this reason, one of ordinary skill in the art "would" have made the substitution. However, it is well established that the mere suitability of an alternative is insufficient to provide the required motivation to combine. Rather, the rejection must establish that there would have been some affirmative motivation to do so. Such a motivation simply does not exist.

As noted in applicant's prior response, Kono is directed to a secondary electric cell, and does not describe or suggest that polyaniline doped with TCNQ may be used for an electroluminescence element, such as the organic light emitting diodes of Bernius, or for a buffer layer of the electroluminescence element. As such, Kono's mere use of polyaniline doped with TCNQ in a secondary electric cell would not have motivated one of ordinary skill in the art to modify the polyaniline used in the organic light emitting diodes of Bernius.

Moreover, Bernius and Kono take substantially different approaches, such that it would not necessarily be apparent that the material of Kono could even be substituted for that of Bernius, let alone that one or ordinary skill would have been motivated to make the substitution. In particular, Bernius shows that polyaniline is doped with a strong organic acid, such as poly(styrenesulfonic acid), which is a Bronsted-Lowry acid (i.e., a substance which donates a proton, also referred to as a proton donor). By contrast, the TCNQ taught by Kono is a Lewis acid (i.e., a substance which accepts an electron pair, also referred to as an electron acceptor).

Bernius discloses that a conductivity of polyaniline is increased by doping with the Bronsted-Lowry acid such as poly(styrenesulfonic) acid, which can donate a proton to polyaniline. Meanwhile, Kono discloses that a conductivity of polyaniline is increased by doping with the Lewis acid such as TCNQ, which can accept an electron pair from polyaniline. Thus, the conductivity of polyaniline is increased by quite different mechanisms between the dopant of Bernius and that of Kono. Accordingly, for this additional reason, there would have been no motivation to replace the strong organic acid taught by Bernius with the TCNQ taught by Kono (or that taught by Nakayama).

For at least these reasons, the rejection should be withdrawn.

Applicant submits that all claims are in condition for allowance.

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Respectfully submitted,

Date: 7/12/06

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